

REMARKS

In the Final Office Action, the Examiner rejected claims 1-10 under 35 U.S.C. § 102(a) as being anticipated by 'Distributed Algorithms,' by Nancy A. Lynch ("*Lynch*").¹

By this Amendment, Applicant cancels claims 2, 3, 7 and 8 amends claims 1 and 6 to incorporate subject matter of the cancelled claims. Claims 1, 4-6, 9 and 10 are pending in the above-captioned patent application.

Rejection Under 35 U.S.C. § 102

In order for *Lynch* to anticipate Applicant's claimed invention under Section 102(a), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in the reference. Further, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." (See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).) *Lynch* fails to anticipate claim 1 because *Lynch* does not to disclose, expressly or otherwise, each and every feature recited in claim 1.

First, *Lynch* apparently discloses a "Ben-Or" algorithm for handling process failures in an asynchronous distributed computing network. (Pages 672-673.) However, *Lynch* fails to disclose, at least, "a distributed system which makes n computers, which are connected via a network, operate synchronously" (emphasis

¹ *Lynch* was published in 1996, more than one year before Applicant's filing date. Accordingly, Applicant respectfully notes that 35 U.S.C. § 102(b), not § 102(a), appears to be the more pertinent statute.

added) as recited in claim 1. In an Advisory Action mailed December 9, 2005, the Examiner apparently concedes that *Lynch* fails to disclose the above-noted feature, but asserts "it is well known in the art that asynchronous networks are an obvious variant of synchronous networks." (Advisory Action, page 2, lines 7-9, emphasis added.) Such arguments of obviousness are inappropriate in a rejection under 35 U.S.C. § 102(a). Accordingly, as conceded by the Examiner, *Lynch* fails to teach "a distributed system which makes n computers, which are connected via a network, operate synchronously, as recited in claim 1. Therefore, *Lynch* cannot anticipate claim 1 under 35 U.S.C. § 102(a) at least for this reason.

Second, since *Lynch* only discloses an algorithm, *Lynch* does not describe any structure for carrying out the algorithm. Thus, *Lynch* also fails to teach the structures recited in claim 1. Namely, *Lynch* does not teach at least "an input candidate collection device," "a first input candidate selection control device," "a second input candidate selection control device," or "a third input candidate selection control device," as recited in claim 1. In the Advisory Action, the Examiner apparently also concedes that *Lynch* fails to describe the above-noted features, but asserts "[i]t is inherent that physical components are used to perform the [Ben-Or] algorithm, otherwise the algorithm is useless. (Advisory Action, p. 2:10-11.)

Applicant respectfully disagrees and notes that, to anticipate Applicant's claimed invention under Section 102(a), a reference must disclose the identical invention must be shown in as complete detail as is contained in the claim. (See M.P.E.P. § 2131.) In this case, the Examiner generally asserts that some sort of physical components are

necessary to perform the Ben-Or algorithm. (*Id.*) Regardless, *Lynch* does not specifically teach, nor does that Examiner assert that *Lynch* teaches “an input candidate collection device,” “a first input candidate selection control device,” “a second input candidate selection control device,” or “a third input candidate selection control device,” as recited in claim 1. Accordingly, even if the Ben-Or algorithm is implemented with physical components as asserted by the Examiner, the Examiner has failed to show that such physical components would consist of the claimed “input candidate collection device,” “first input candidate selection control device,” “second input candidate selection control device,” or “third input candidate selection control device,” as recited in claim 1. Therefore, *Lynch* fails to anticipate claim 1 under 35 U.S.C. 102(a) for this reason as well.

Third, in connection with the Ben-Or algorithm, *Lynch* teaches a process *Pi* that apparently considers the parameter v and, if *Pi* obtains $(n - f)$ messages having the same value of v , *Pi* performs the function *decide*(v). (Page 673, lines 24-30.) However, nothing in *Lynch* suggests that the function *decide*(v) corresponds to the claimed settling “that input data as the next to be processed,” as recited in claim 1. Accordingly, *Lynch* also fails to disclose the claimed “first input candidate selection control device configured to...settle, when the not less than $(n - f)$ input data include not less than $(n - f)$ input data having identical contents, that input data as the next to be processed.”

In the Advisory Action, the Examiner apparently concedes that *Lynch* fails to describe the above-noted features, but alleges, “it is inherent that functions using conditional statements along with loops are present. They are required based on the

constant comparisons made by the algorithm.” (Advisory Action, p. 2:11-14.) However, even if the Examiner’s assertions were correct (which the Applicant does not concede), “conditional statements along with loops” do not constitute a “first input candidate selection control device configured to...settle, when the not less than (n - f) input data include not less than (n - f) input data having identical contents, that input data as the next to be processed,” as recited in claim 1. Therefore, *Lynch* fails to anticipate claim 1 under 35 U.S.C. 102(a) for this reason also.

Fourth, amended claim 1 recites “a second input candidate selection control device configured... to cause the input candidate collection device to reexecute collection after selecting the input data item as a self candidate and discard all input data items of other candidates, when the majority of collected input data items are present.” *Lynch*’s disclosure of the Ben-Or algorithm is silent as to the claimed functions: “reexecute collection” and “discard all input data.” In the Advisory Action, the Examiner apparently concedes that *Lynch* fails to describe the above-noted features, but asserts that these features are inherent. (Advisory Action, p. 2:10-15.) In particular, based up the Examiner’s allegation that “loops and conditional statements are used,” the Examiner further alleges that “since loops must be present, it is also inherent that discarding occurs to prevent memory corruption and overflow.”² (Advisory Action, p.2:12-15) Regardless, even if the Examiner’s assertions were correct, (which the Applicant does not concede), “discarding” in *Lynch* does not correspond to the claimed “a second input candidate selection control device configured...to cause the input

² Applicants note that the Examiner’s assertion presumes that an allegedly inherent feature necessitates another allegedly inherent feature.

candidate collection device to reexecute collection after selecting the input data item as a self candidate and discard all input data items of other candidates, when the majority of collected input data items are present" (emphasis added), as recited in claim 1.

Accordingly, *Lynch* also fails to disclose "a second input candidate selection control device," recited in claim 1.

Fifth, claim 1 further recites, "a third input candidate selection control device configured to cause the input candidate collection device to reexecute collection after arbitrarily selecting input data item from the collected input data items as a self candidate and discarding all input data items of other candidates, when the second input candidate selection control device determines that the majority of the collected input data items are not present." *Lynch*'s disclosure of the Ben-Or algorithm apparently consists of only two rounds ("Round 1" and "Round 2", page 673, lines 21-22). No third round is disclosed. Therefore, even if these two rounds could somehow teach the claimed first and second input candidate selection control devices (and Applicant does not agree that they do), *Lynch* certainly fails to teach a third input candidate selection control device, as further recited in claim 1.

In the Advisory Action, the Examiner argues that "the number of rounds is clearly not relevant to the number of 'input candidate control devices'" and "no limitation is placed by the disclosure on the number of input devices that can be applies." (Advisory Action, p. 2:17-21.) The Examiner apparently concedes that *Lynch* fails to disclose the above-note features, but asserts that it would be obvious to modify the Bar-On algorithm to include additional rounds because "the number of rounds is clearly not relevant to the

number of 'input candidate control devices'" and "no limitation is placed by the disclosure on the number of input devices that can be applies." (*Id.*) Such arguments of obviousness are inappropriate in a rejection under 35 U.S.C. 102(a). Accordingly, as conceded by the Examiner, *Lynch* is does not teach "a third input candidate selection control device configured to cause the input candidate collection device to reexecute collection after arbitrarily selecting input data item from the collected input data items as a self candidate and discarding all input data items of other candidates, when the second input candidate selection control device determines that the majority of the collected input data items are not present," as recited in claim 1. Therefore, *Lynch* fails to anticipate claim 1 under 35 U.S.C. 102(a) for this reason also.

Sixth, *Lynch* fails to disclose "a journal step of holding the input data item settled in the first input candidate selection control step; a first input candidate adjustment control step of sending the input data item held in the journal step as settled input data item, when another computer collects an input data item of a step that has already been settled in the self computer; and a second input candidate adjustment control step of settling input data item as next data to be processed, when the input data item is sent from another computer as settled input data item upon collecting input data items in the input candidate collection step," as recited in amended claim 1.

As noted previously, amended claim 1, incorporates subject matter formerly recited in claims 2 and 3. To the extent that the Examiner's previous rejection of claims 2 and 3 apply to amended claim 1, the Examiner asserts that the above-noted features are inherent to the disclosure of *Lynch* in order for the Ben-Or algorithm to function

properly. (Office Action mailed August, 15, 2005, pp. 2:19-3:12). Applicant respectfully disagrees.

The Examiner's reliance on the theory of inherency to teach to above-noted features of claim 1 is improper. To rely on the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent feature necessarily flows from the teachings of the applied prior art; however inherency may not be established by probabilities or possibilities. (See M.P.E.P. § 2112(V).) Extrinsic evidence must make clear that the missing feature is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. (*Id.*) The fact that a certain feature may occur or be present in the prior art is not sufficient to establish its inherency. (See M.P.E.P. § 2112(V), emphasis added.)

In this case, the Examiner fails to provide sufficient evidence from *Lynch* or any extrinsic evidence to establish that the asserted subject matter is necessarily present in *Lynch*. Further, the Examiner fails to present sufficient factual basis and/or technical reasoning to demonstrate inherency. The Examiner, therefore, cannot properly infer, for example, that such features are necessary for the Ben-Or algorithm disclosed by *Lynch* to work properly.

Contrary to the Examiner's assertion that "[i]t is inherent that physical components are used to perform the [Ben-Or] algorithm, otherwise the algorithm is useless" (Advisory Action, p. 2:10-11), it is not true that the physical components

alleged by the Examiner necessarily include the recited “first input candidate selection control device,” “second input candidate selection control device,” “third input candidate selection control device,” “journal device,” “first input candidate adjustment control device,” and “second input candidate adjustment control device,” as recited in claim 1. Indeed, even if the Examiner’s assertion was correct (which Applicant does not concede), the Examiner has not shown that such physical components would constitute the claimed “devices” and have the claimed functionality of these “devices.” For example, the Examiner fails to explain why a physical component corresponding to the claimed “first input candidate control device” that “send[s] the input data item held in the journal device as settled input data item, when another computer collects an input data item of a step that has already been settled in the self computer,” as recited in claim 1, is necessarily disclosed by *Lynch*. Instead, the Examiner broadly asserts that such functions must be present. However, such broad allegations are insufficient to establish that the above-noted features are inherent in *Lynch*. Accordingly, reliance on such subject matter cannot support a rejection of claim 1 under 35 U.S.C. §102(e).

Applicant respectfully submits that the claimed features discussed above are not inherent. Moreover, Applicant respectfully submits that, due the Examiner’s misplaced reliance on inherency, the Examiner has failed to show that *Lynch* discloses each and every element of claim 1. If the Examiner maintains the rejection of claim 1, Applicant respectfully requests that the Examiner provide extrinsic evidence clearly showing that the allegedly inherent features of claim 1 are necessarily present in *Lynch*.

In light of the above-described deficiencies of *Lynch*, Applicant submits that claim 1 is allowable over the applied reference and claims 4 and 5 are allowable at least due to their dependence from claim 1.

Claim 6, although of different scope, recites features similar those of claim 1. Therefore, *Lynch* does not anticipate claim 6 under 35 U.S.C. § 102(a) for similar reasons as discussed above for claim 1. Further, claims 9 and 10 are not anticipated by *Lynch* at least due to their dependence from claim 6.

Accordingly, for at least the reasons discussed above, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1, 4-6, 9 and 10 under 35 U.S.C. §102(a) and allow the claims.

Conclusion

In view of the foregoing, pending claims 1, 4-6, 9 and 10 are in condition for allowance, and Applicant requests a favorable action.

Applicant encourages the Examiner to contact the undersigned representative by telephone to discuss any remaining issues or to resolve any misunderstandings.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

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By: 

Steven L. Ashburn
Reg. No. 56,636